

## **Enviroscope**

Dr. K.C. Yiin, Environmental Engineering Manager • Stanley Mechanics Tools 2251 Chennault Drive • Carrolton, TX 75006

## EPA Publishes Final Rule On Chromium MACT Standards

The Environmental Protection
Agency (EPA) has published the
final rule of the National Emission
Standards (or the Maximum Achievable
Control Technology [MACT] Standards) for Chromium Emissions for
Hard and Decorative Chromium
Electroplating and Chromium Anodizing Tanks, in the *Federal Register*, pp.
4948–4993, Vol. 60, No. 16, Wednesday, January 25, 1995, which is the
effective date of this set of standards.

Owners and operators of all affected sources must understand the heart of the affected emission standards and the compliance dates triggered by these MACT standards. The facts are:

- (1) Within a one-year period from the effective date (January 25, 1995), owners/operators must meet the MACT emission standards of 0.01 mg/dscm, or apply the fume suppressant control technique to control the surface tension of the plating solution under 45 dyne/cm, for all new and existing tanks of decorative chromium plating tanks using a chromic acid bath, and
- (2) Within a two-year period the MACT emission standards of 0.01 mg/dscm for all chromium anodizing tanks must be met; 0.03 mg/dscm for all existing small hard chromium plating tanks; 0.03 mg/dscm for all new small, hard chromium plating tanks, and all existing and new large, hard chromium plating tanks.

## "Initial Notifications" Requirement

Before the due date of these two statutory compliance deadlines, there is another statutory reporting requirement—the "*Initial Notifications*," 40 CFR 63, Section 347 (c). Under this requirement, all the affected sources' owners and operators must fulfill and submit the required information to the EPA, state, or district Title V permitting agency to register their chromium acid and electroplating/anodizing operations.

Reporting deadlines and the minimum information of initial notifications for those affected sources can be categorized into four tiers, according to the startup dates of operations and the trivalent chromium electroplating operations only.

Tier I—Initial Startup Prior to January 25, 1995

The initial notification reporting deadline is 180 calendar days after the January 25, 1995 effective date (or July 24, 1995). The minimum information required is:

- 1. Owner's or operator's name, title and address
- 2. Physical location/address of each affected source
- 3. A statement of the Subpart N of this MACT standard as the basis for this notification
- Identification of the applicable emission limitation and complaince date for each affected source
- A brief description of each affected source, with the type of process operation performed
- 6. For hard chromium electroplating sources:
  - a. The yearly maximum cumulative potential rectifier capacity
  - A declaration noting whether the source is located at a large or a small hard chromium electroplating facility, based on either the actual or maximum cumulative potential rectifier capacity
  - c. A statement of a small source of hard chromium electroplating by limiting the maximum cumulative actual rectifier capacity of 60 million amp-hr/hr via nonresettable amp-hr meters and monthly records kept of the actual amp-hr usage for each 12 months, a Title V permit, and the in-compliance with the MACT standard
- A statement noting whether the affected source is located at a major or area source.

Tier II—Initial Startup After January 25, 1995, and Construction or Reconstruction Started Before this Date

The reporting deadline is no later than 60 days after January 25, 1995 (or March 26, 1995). The minimum information required is:

- 1. Owner's or operator's name, title and address
- Physical location/address of each affected source
- 3. Notification of either constructing a new affected source or reconstructing an existing affected source with any physical/operational change
- A statement of the Subpart N of this MACT standard as the basis for this notification
- Expected commencement and completion dates of the construction or reconstruction
- 6. Anticipated initial startup date of the affected source
- Type of process operation to be performed—hard or decorative chromium electroplating or chromium anodizing
- A description of the air pollution control technique to be used
- 9. An estimate of source emissions based on engineering calculations and vendor information on the control device efficiency, expressed in units consistent with the emission limits of the Subpart N

(Note: For a reconstruction source, the following information is also required.)

- A brief description of the affected source and the components to be replaced
- 11. A brief description of the current and proposed emission control technique, including the information required in items 8 and 9
- An estimate of the fixed capital cost of the replacements and of constructing a comparable, entirely new source

58 PLATING & SURFACE FINISHING

- 13. The estimated life of the affected source after replacements
- 14. A discussion of any economic or tecnical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements.

In the notification of reconstruction, if there are no economic or technical limitations to prevent the source from complying with all relevant standards, the information requested in items 12–14 of this tier is not required. Notification of the actual startup date of the source shall be submitted within 30 calendar days after actual startup date.

Tier III—Both Initial Startup and Construction or Reconstruction Started After January 25, 1995
A notification of the beginning date of the construction or reconstruction at an affected source shall be submitted simultaneously with the notification of construction or reconstruction. The notification shall be submitted no later than 30 calendar days after the beginning date, or shall be submitted as soon as practical before the construction or reconstruction is planned to begin. The minimum information required is the same as for Tier II.

Tier IV—Tri-Chromium
Electroplating Sources
The reporting deadline is 180 calendar days after January 25, 1995 (or July 24, 1995). Minimum information required:

- 1. Owner's or operator's name, title and address
- Physical location/address of each affected source
- 3. A statement of the Subpart N of this MACT standard as the basis for this notification
- 4. Identification of the applicable emission limitation and compliance date for each affected source
- A brief description of the type of process operation performed for each affected source
- 6. A statement that an adequate wetting chemical is or will be used in the triavlent chromium electroplating tank to comply with Section 342 (e) Standards for decorative chromium electroplating tanks using a trivalent chromium bath
- The list of bath components that comprise the trivalent chromium bath, with the wetting agent clearly defined.

In this promulgated chromium emission MACT standard, it is specified that reports required in the initial notification may be sent by U.S. mail, by FAX or by a courier. Submittals sent by U.S. mail shall be postmarked on or before the specified deadline. Submittals sent by other methods shall be received by the Administrator or the delegated person on or before the specified deadline. Such reports may be submitted on electronic media if it is acceptable to both the Administrator or the delegated person and the owner or operator of an affected source.

Please refer to Section 63.347 (a), (c) Initial Notification, and (i) Reports associated with trivalent chromium baths for further information concerning how to prepare and forward the initial notification document to the Title V (or Part 70) permit agency in your area, with copies to the regional and local city or county environmental entities (for review). If a state or district agency does not yet have the full delegation of this program from the EPA, then the document should be filed with the regional EPA office and copies sent to the state or district environmental protection agencies.

Please note the importance of this initial notification. The relative information must be filed—completed and on time—with your Title V Operating Permit Authority. If this requirement is not complied with, unnecessary legal hassles will result from the regulatory agencies, especially if a "Notice of Deficiency" letter is received from the regional EPA office.

If you missed the deadline, however, do not panic. Just follow the aforementioned steps to prepare a complete initial notification document and file it with the proper agency as soon as possible. A late notification is much better than total non-compliance. Otherwise, a lot of energy, time and money could be required to untangle the mess.

## **About the Columnist**

Dr. K.C. Yiin is environmental engineering manager with Stanley Mechanics Tools, Carrollton, TX, and is a registered engineer in both Texas and Oklahoma. He holds a BSc degree from Cheng-Kung University, Taiwan, R.O.C., an MS from Texas A&I University, and a PhD from the University of Oklahoma. He has also worked at the Oklahoma Water Resources Board in Oklahoma City, and USPCI, Inc., Houston, TX.